

REPLACEMENT ABSTRACT

ABSTRACT OF THE DISCLOSURE

A wavelength converter device is provided for generating a converted radiation at frequency ω_g through interaction between at least one signal radiation at frequency ω_s and at least one pump radiation at frequency ω_p , including an input for the at least one signal radiation at frequency ω_s , a pump light source for generating the at least one pump radiation at frequency ω_p , an output for taking out the converted radiation at frequency ω_g , a structure for transmitting the signal radiation, including two optical resonators having a non-linear material, having an optical length of at least $40\lambda/2$, λ being the wavelength of the pump radiation, and resonating at the pump, signal and converted frequencies ω_p , ω_s and ω_g , wherein by propagating through the structure, the pump and signal radiation generate the converted radiation by non-linear interaction within the optical resonators.